

WHAT IS CLAIMED IS:

1. A centering device of a spindle motor having a rotor and a shaft, said centering device comprising:

5 a body portion which is disposed on the rotor, and is provided with a central hole for accommodating the shaft of the spindle motor; and

a plurality of centering elastic finger units, located along the periphery of the body portion, each centering elastic finger unit comprising at least two elastic fingers,

10 wherein each of said elastic fingers comprises a free end which extends from the body portion in the circumferential direction of the rotor, and which has a contact portion adapted to urge against an optical disk to guide the centering of the optical disk with respect to the shaft of the spindle motor.

2. The centering device as claimed in claim 1, wherein said contact portion is formed into an arc surface.

15 3. The centering device as claimed in claim 1, wherein the material for the body portion and the centering elastic finger units is selected from a group consisting of polymer material, metal material, and composite material.

4. The centering device as claimed in claim 1, wherein said centering device and said rotor are separable.

20 5. The centering device as claimed in claim 1, wherein said centering device is integrally formed with said rotor.

6. A centering device of a spindle motor having a rotor, a shaft, and a disk supporting plate, said centering device comprising:

25 a body portion which is disposed on the disk supporting plate and is provided with a central hole for accommodating the shaft of the spindle motor; and

a plurality of centering elastic finger units, located along the periphery of the body portion, each centering elastic finger unit comprising at least two elastic fingers,

wherein each of said elastic fingers comprises a free end which extends from the body

portion in the circumferential direction of the rotor, and which has a contact portion adapted to urge against an optical disk to guide the centering of the optical disk with respect to the shaft of the spindle motor.

5 7. The centering device as claimed in claim 6, wherein said contact portion is formed into an arc surface.

8. The centering device as claimed in claim 6, wherein the material for the body portion and the centering elastic finger units is selected from a group consisting of polymer material, metal material, and composite material.

10 9. The centering device as claimed in claim 6, wherein said centering device and said disk supporting plate are separable.

10. The centering device as claimed in claim 6, wherein said centering device, and said disk supporting plate are integrally formed.